OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E. Secretary to the Commission

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OPINION 396

Use of the Plenary Powers to permit of the addition to the Official List of Specific Names in Zoology of the specific name immigrans Sturtevant, 1921, as published in the combination Drosophila immigrans (Class Insecta, Order Diptera)

LONDON:

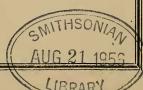
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 396

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Professor Tadeusz Jaczewski (Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland) (15th June 1950)
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Dr. K. H. L. KEY (Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia) (15th October 1954)

(29th October 1954) Doc. Dr. Ferdinand PRANTL (Národni Museum v Praze, Prague, Czechoslovakia) (30th

October 1954) Professor Dr. Wilhelm KÜHNELT (Zoologisches Institut der Universität, Vienna, Austria)

(6th November 1954) Professor F. S. Bodenheimer (The Hebrew University, Jerusalem, Israel) (11th November

1954) Professor Ernst Mayr (Museum of Comparative Zoology at Harvard College, Cambridge,

Massachusetts, U.S.A.) (4th December 1954)
Professor Enrico Tortonese (Museo di Storia Naturale "G. Doria," Genova, Italy) (16th December 1954)

OPINION 396

USE OF THE PLENARY POWERS TO PERMIT OF THE ADDITION TO THE "OFFICIAL LIST OF SPECIFIC NAMES IN ZOOLOGY" OF THE SPECIFIC NAME "IMMIGRANS" STURTEVANT, 1921, AS PUBLISHED IN THE COMBINATION "DROSOPHILA IMMIGRANS" (CLASS INSECTA, ORDER DIPTERA)

RULING:—(1) Under the Plenary Powers the specific name brouni Hutton, 1901, as published in the combination Drosophila brouni (Class Insecta, Order Diptera) is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

- (2) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 693:—*immigrans* Sturtevant, 1921, as published in the combination *Drosophila immigrans*.
- (3) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name No. 265:—brouni Hutton, 1901, as published in the combination *Drosophila brouni*.

I. THE STATEMENT OF THE CASE

On 2nd September 1952, Dr. Ernst Mayr (then of the American Museum of Natural History, New York) and the three undermentioned specialists, submitted to the Commission the following joint application in which they asked the Commission to use its Plenary Powers to secure that the specific name immigrans Sturtevant, 1921, as published in the combination Drosophila

immigrans, should be the oldest available name for the taxon so named:—

Proposed use of the Plenary Powers to suppress the specific name "brouni" Hutton, 1901, as published in the combination "Drosophila brouni", for the purpose of preserving the specific name "immigrans" Sturtevant, 1921, as published in the combination "Drosophila immigrans" (Class Insecta, Order Diptera)

Joint Application by :-

ERNST MAYR

(Curator, Whitney-Rothschild Collection, The American Museum of Natural History, New York)

J. T. PATTERSON

(Professor of Zoology, University of Texas, Austin, Texas)

MARSHALL R. WHEELER

(Assistant Professor of Zoology, University of Texas, Austin, Texas)

WARREN P. SPENCER

(Professor of Biology, College of Wooster, Ohio)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to suppress the name *brouni* Hutton, 1901, as published in the combination *Drosophila brouni*, for the purpose of preserving the well-known name *immigrans* Sturtevant, 1921, as published in the combination *Drosophila immigrans*. The facts of this case are set out below.

- 2. In a recent study of New Zealand DROSOPHILIDAE (1952, Trans. Proc. Roy. Soc. New Zealand 79: 514—515), Roy A. Harrison proposes to place the name Drosophila immigrans Sturtevant, 1921 (Carnegie Inst. Washington, Publ. No. 301: 83) in the synonymy of Drosophila brouni Hutton, 1901 (Trans. New Zealand Inst. 33: 91). The present applicants believe that to accept this proposal would greatly disturb uniformity and stability of zoological nomenclature, particularly since the zoological identity of the species on which these names are based is by no means unequivocally established Any action on these names must take the following facts into consideration.
- 3. The original description of *Drosophila brouni* Hutton is taxonomically worthless. It does not contain a single statement that would permit identification of the nominal species *Drosophila brouni* as a member of the *D. immigrans* group, or even of the genus *Drosophila*.
- 4. The type specimen of *D. brouni* is still in existence (Harrison, 1952), but it is a female. Females in several species in the *Drosophila*

immigrans group cannot be distinguished on the basis of a study of external characters, even when they are alive, much less on the basis of a single, old, dried, pinned specimen.

- 5. There are fifteen to twenty names available for presumed *immigrans*-like species in the Pacific area. The group has not yet been monographed, nor genetically or cytologically analysed. No one knows how many species there really are or what their proper names are. The Pacific appears to be the centre of diversity of this group.
- 6. The type specimen of *Drosophila brouni* was collected more than fifty years ago. Although flies have recently been caught in New Zealand which produce fertile offspring with U.S. *Drosophila immigrans* and presumably belong to this species, this does not prove that they belong to the same species-population as the type specimen of *Drosophila brouni* Hutton. It is not known how many members of the Pacific *immigrans*-group may occasionally reach New Zealand, and, in view of the rapid changes in the New Zealand biota, it is possible that different species of *Drosophila* were predominant fifty years ago than are now.
- 7. The name *immigrans* is not only the name of a well-known species, but it is also the "type species" of an important subdivision of the genus *Drosophila*, "The *immigrans* group of species". A revision of this group is now in progress and it is possible that the nominal species *Drosophila immigrans* Sturtevant will be found to be a composite of several sibling species. Nevertheless, the name *immigrans* ought to be preserved for a species of this important group, regardless of the ultimate taxonomic definition of the species *Drosophila immigrans* Sturtevant. If necessary, an explanatory note should be added to the entry on the *Official List* of the name *immigrans* Sturtevant, as soon as the species so named has been fully defined.
- 8. The name *Drosophila immigrans* is universally known in the biological literature and has been used in literally hundreds of papers. For the entire period since 1921 during which the species has been studied in genetics no name other than *immigrans* has been used for it. The name *immigrans* is thus so firmly in the biological literature that it would be confusing in the extreme to replace it by the name *brouni*, aside from the many above-mentioned uncertainties regarding the species to which the latter name applies.
- 9. The present applicants accordingly petition the International Commission on Zoological Nomenclature to use its Plenary Powers to prevent the discard of the universally known name *immigrans* Sturtevant by suppressing the name *brouni* Hutton. The action which the International Commission is now asked to take is that it should:—
 - (1) use its Plenary Powers to suppress the name *brouni* Hutton, 1901, as published in the combination *Drosophila brouni*, for the

- purposes of the Law of Priority but not for those of the Law of Homonymy;
- (2) place the foregoing name on the Official Index of Rejected and Invalid Specific Names in Zoology;
- (3) place the name *immigrans* Sturtevant, 1921, as published in the combination *Drosophila immigrans*, on the *Official List of Specific Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE.

- 2. Registration of the present application: On the receipt of Dr. Ernst Mayr's letter of 2nd September 1952, the question of the possible use of the Commission's Plenary Powers to protect the specific name *immigrans* Sturtevant, 1921, as published in the combination *Drosophila immigrans*, was allotted the Registered Number Z.N.(S.) 711.
- 3. Publication of the present application: The present application was sent to the printer on 22nd November 1952, but owing to the need during 1953 for concentrating the resources of the Office of the Commission upon the preparations for the Session of the Commission to be held in Copenhagen in July of that year and later upon the arrangements for the publication of the decisions on nomenclature taken at Copenhagen it was found necessary temporarily to suspend the publication of Parts of the Bulletin of Zoological Nomenclature dealing with applications relating to the status of individual names and similar matters. In consequence, it was not until 11th May 1954 that the present application was published in Part 6 of volume 9 of the Bulletin of Zoological Nomenclature (Mayr et al., 1954, Bull. zool. Nomencl. 9: 161—162).
- **4.** Issue of Public Notices: Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4**: 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 11th May 1954 (a) in Part 6 of volume 9 of the *Bulletin of*

Zoological Nomenclature (the Part in which the application submitted by Dr. Mayr and his colleagues was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to a number of entomological serials in Europe and America.

- 5. Comments received in the present case: The issue of the Public Notices specified in the preceding paragraph elicited communications from six specialists in various parts of the world, of whom five supported the application submitted by Dr. Mayr and his colleagues, while one objected to the suppression of the name *brouni* Hutton and expressed the view that, if it could be shown that *brouni* Hutton and *immigrans* Sturtevant were no more than different names for the same taxon, there was no valid reason why the name *immigrans* Sturtevant should not be sunk as a junior subjective synonym of *brouni* Hutton. The communications so received are reproduced in the immediately following paragraphs.
- 6. Support received from Dr. Roy A. Harrison (Plant Diseases Division, Department of Scientific and Industrial Research, Auckland, New Zealand): On 13th August 1954, Dr. Roy A. Harrison (Plant Diseases Division, Department of Scientific and Industrial Research, Auckland, New Zealand) addressed the following letter to the Commission, commenting upon certain aspects of the present application and intimating his support in the interests of nomenclatorial stability for the action proposed (Harrison, 1954, Bull. zool. Nomencl. 9: 342—343):—

The application should be considered only in the light of the well-known and common usage of the name *immigrans* Sturtevant. All references in the application directed at raising doubt as to the identity of the species to which the name *brouni* Hutton is applied, are irrelevant and are commented on below.

2. Comment on Para. 2 in Z.N.(S.) 711: The synonymy of immigrans Sturtevant with browni Hutton is established just as firmly as are the majority of synonyms published in modern taxonomic literature. For a synonymy to be unequivocally established implies that both the

populations under consideration must be shown in actual fact to be interfertile—a set of circumstances rarely possible to prove and more rarely asked for.

- 3. Comment on Para. 3 in Z.N.(S.) 711: The original description of Drosophila brouni Hutton is not taxonomically worthless particularly as regards the genus. Hutton described the species as a member of the genus Drosophila. The ability or otherwise of Hutton to recognise a member of the genus Drosophila is, of course, not under consideration. However, that Hutton was correct in placing brouni in the genus Drosophila is substantiated by Harrison (1952, Trans. Roy. Soc. N.Z. 79: 514—515).
- 4. Comment on Para. 4 in Z.N.(S.) 711: There is as yet no published evidence which shows that females in the immigrans group of species cannot be distinguished by means of a study of external characters. If, as is stated in para. 7 of Z.N.(S.) 711 Drosophila immigrans Sturtevant will possibly be found to consist of several sibling species, it is entirely probable that with further conscientious study some differences of external morphological characters will be discovered for the separation of such species as has been done, for example, with the sibling species Drosophila pseudoobscura Frolova and Drosophila persimilis Dobzhansky and Epling. A museum specimen is of necessity dried and pinned and its age is of no concern.
- 5. Comment on Para. 5 in Z.N.(S.) 711: This paragraph is irrelevant.
- 6. Comment on Para. 6 in Z.N.(S.) 711: It is nowhere stated in published literature that because recent immigrans material collected in New Zealand has produced fertile offspring with U.S. immigrans that the synonymy of brouni and immigrans is established. In collections made over the last 15 years in the Auckland area no other member of the immigrans group has been discovered. The type specimen of Drosophila brouni Hutton was taken in Auckland which even 50 years ago was a city of no mean state and as such offered the domestic habitats suitable for Drosophila immigrans exactly as it does at the present time.
- 7. Sturtevant, A. H. (1921, Carnegie Inst. Wash., publ. 301:84) in commenting on his description of Drosophila immigrans sp. nov., states: "It will not be surprising if an earlier name, applied in some other region, is discovered." Thus, there was doubt as to the real identity of Drosophila immigrans at the time of its original description and it is unfortunate that the position was not clarified in 1921 or soon afterwards.

- 8. In conclusion I wish to state that in the interests of stability of zoological nomenclature, I agree that *brouni* should be suppressed in favour of *immigrans* on the basis of the well-known and common usage of the name *immigrans* over the last thirty or more years. However, I wish to reiterate that the application should be judged on this aspect alone, and that the other arguments in the application aimed at raising doubts as to the correctness of the synonymy of *brouni* and *immigrans* are irrelevant.
- 7. Support received from Dr. E. M. Hering (Zoologisches Museum der Humboldt-Universität zu Berlin): On 27th September 1954, Dr. E. M. Hering (Zoologisches Museum der Humboldt-Universität zu Berlin) addressed a letter to the Commission with which he enclosed a statement giving the grounds on which he urgently supported the present application. The following is a translation from the German of the communication so received (Hering, 1954, Bull. zool. Nomencl. 9: 344—345):—

I should like to support the application from Mayr, etc. for the placing of the name *Drosophila immigrans* Sturtevant, 1921, on the *Official List of Specific Names in Zoology* and of the name *D. brouni* Hutton, 1901, on the *Official Index of Rejected and Invalid Specific Names in Zoology* on the following grounds:—

- (1) The establishment of synonymy between two names of which one is based on a male type and the other on a female type can never claim to be absolutely assured, since a direct comparison of the types from a taxonomic point of view is in such a case not possible.
- (2) In cases where synonymy of two names cannot be definitely established for this reason, it is desirable on taxonomic grounds to give preference to the name which is based on the *male* type, since the genital characters make possible in this case an irrefutable determination of the species.
- (3) This case is particularly important in the present case of *Drosophila immigrans* Sturtevant, since the original publication of the name was accompanied, not only by a detailed description of the morphology of the Imago, but also by particulars about the first stages and the genetic characteristics.
- (4) The applicant has already drawn attention to the quite special conditions to be observed in this particular species in New Zealand. The special biotic factors prevailing in that country

change immigrants in quite a small number of years, as Wise (1953, 1954) has shown in the alteration of the ecological balance of *Lithocolletis messaniella Z.* (Lep.).

- (5) Since *Drosophila immigrans* Sturtevant, 1921, is a name which has for decades played an important role in genetic publications, in which Hutton's name does not appear at all, it is evident that we have here a case to which the Principle of Conservation announced in the Copenhagen Decisions would have been particularly applicable if only a longer period had elapsed since its publication.
- 2. For the above reasons I recommend urgently the acceptance of the application by Mayr, etc.
- 8. Support received from Dr. F. van Emden (Commonwealth Institute of Entomology, London): On 2nd November 1954, Dr. F. van Emden (Commonwealth Institute of Entomology, London) addressed to the Commission the following letter in support of the present application (van Emden, 1954, Bull. zool. Nomencl. 9: 345):—

From my experience with the identification and distribution of the species of the *immigrans* group (= sbg. *Spinulophila*) in the genus *Drosophila* I strongly support the application by Dr. E. Mayr and others for the total suppression of the name *Drosophila brouni* Hutton.

If this cannot be attained I suggest that brouni Hutton should be treated as a doubtful synonym of D. immigrans Sturt., which seems to be the only way which is both scientifically exact and practical for dealing with this name if retained as valid, since it is impossible to prove at present that brouni is identical with immigrans but since it is, on the other hand, highly probable that this is the case. The substitution of brouni for immigrans would therefore be scientifically incorrect and is to be entirely rejected.

9. Support received from Dr. John Smart (Cambridge University, Department of Zoology, Cambridge): On 3rd November 1954, Dr. John Smart (Cambridge University, Department of Zoology, Cambridge) addressed the following letter to the Commission

intimating his support for the present application (Smart, 1954, Bull. zool. Nomencl. 9: 346):—

I have looked up the various papers concerning *Drosophila brouni* and have come to the conclusion that I would wish to support the application of Messrs. Mayr, Patterson, Wheeler, and Spencer. I think that it is very important that we do what we can to prevent confusions of this kind arising and I have already acted in another case [*Drosophila subobscura* Collin, 1936] of this kind (Smart, 1945, *Proc. R. ent. Soc. Lond.*, (B), 14:53—56).

10. Support received from Dr. M. Demerec (Carnegie Institution of Washington, Department of Genetics, Cold Spring Harbor, Long Island, N.Y., U.S.A.): On 5th January 1955, Dr. M. Demerec (Director, Carnegie Institution of Washington, Department of Genetics, Cold Spring Harbor, Long Island, N.Y., U.S.A.) addressed the following letter to the Commission in support of the present application:—

As editor of *Drosophila Information Service*, a yearly bulletin which has been circularized among Drosophila geneticists since 1934, I am writing in support of the application made by Mayr, Patterson, Wheeler, and Spencer (Commission's reference Z.N.(S.) 711) that the International Commission of Zoological Nomenclature use its Plenary Powers to suppress the name *Drosophila brouni* Hutton in favour of the name *Drosophila immigrans* Sturtevant.

Since 1921 the name *D. immigrans* has been used extensively in genetic literature, and at present it is well established and well known to geneticists. Suppression of this name and substitution of an unfamiliar one would undoubtedly cause considerable confusion in the genetic literature of *Drosophila*, and would probably be resented by a large proportion of *Drosophila* geneticists.

11. Objection received from Dr. E. B. Basden (Institute of Animal Genetics, Edinburgh, Scotland): On 11th September 1954, Dr. E. B. Basden (Institute of Animal Genetics, Edinburgh, Scotland) intimated his objection to the present application in the following letter (Basden, 1954, Bull. zool. Nomencl. 9: 343—344):—

The group of *Drosophila* to which *immigrans* belongs has not yet been monographed (*vide* paras. 5, 7 in Mayr et al., 1954, Bull. zool. Nomencl. 9 (6): 161—162). Therefore, it would be premature for the Commission to express an opinion before this has been done.

- 2. The $\[Pi]$ type specimen of D. brouni Hutton (para. 4) and $\[Pi]$ "gonotype" specimens of D. immigrans are in existence. Therefore, these should be critically compared side by side by a competent independent observer. "Comparison with the type" is a fundamental precept in taxonomy, yet it appears this has not been done in this case, i.e. the two-type series have not been compared.
- 3. If a reliable difference is discovered, then *D. brouni* and *D. immi-grans* can be considered distinct and a ruling by the Commission will not be required.
 - 4. If such a difference is not discovered, then
 - (a) the two names are synonyms for one species;
 - (b) the two names represent two distinct species, that are visually indistinguishable in the \mathcal{Q} sex (para. 4).
- 5. If no difference is found, and since 4(b) applies (para. 4), and since there may be sibling (i.e. visually indistinguishable) species of *D. immigrans* (para. 7)—then it cannot be proved that *D. immigrans* is the same as or different from *D. brouni*. In such a case it would be incorrect to sink one species as a synonym of the other or to (para. 9(1)) suppress the name *brouni* Hutton, 1901.
- 6. If, however, it be considered that D. brouni and D. immigrans are the same species, I do not see any valid reason why the name D. brouni should not replace the name D. immigrans. D. immigrans is well known in entomological and genetic literature but it is only of recent (33 years) introduction. The law of priority should not be spurned after this relatively short period. No name that floods the literature should be allowed automatically to supersede an older, lesser-known name, because of an oversight in systematic work; provided that a reasonable period of years has not elapsed. I do not think this reasonable period has elapsed in this case. Credit is due to systematists who rectify such oversights. Sturtevant himself, after his description of D. immigrans (1921, The North American species of Drosophila Carneg. Instit. Washington, Publ. No. 301:84) writes that it will not be surprising if an earlier name, applied in some other region, is discovered. This probably has now been accomplished by Harrison (1952, New Zealand Drosophilidae (Diptera), Tr. Proc. Roy. Soc. N.Z., 79(3): 514). Future published reference to the species as "D. brouni Hutton (=D. immigrans Sturtevant)" for a period of two or three years would remove any inconvenience or confusion caused by the change of name.
- 7. The labelling of a group of *Drosophila*, e.g. *immigrans*-group (para. 7), is a purely convenient and arbitrary affair and cannot be accepted as type designation. The change to "brouni-group", or to any

other name, would not affect scientific research in the least. In fact, the name brouni, originating from New Zealand, would not be ill-fitting for the group, for it is stated (Patterson and Stone, 1952, Evolution in the Genus Drosophila, Macmillan Co., N.Y.: 39) that a majority of members of the immigrans-group has been recorded from the Australian and Oriental regions; and Sturtevant (op. cit) writes that the data suggest that D. immigrans may have come from the Pacific region. Also the name brouni, 1901, would have date priority over all other species in the group, which D. immigrans does not enjoy even when brouni is not considered.

8. Until my attention was drawn to the proposed use of the Plenary Powers in this case, I was unaware of Harrison's paper (op. cit.), otherwise I would have had no hesitation in coupling the name brouni with immigrans in my two papers, "Some Drosophilidae of the British Isles" (22.ix.1952, Ent. mon. Mag.) and "The Distribution and Biology of Drosophilidae in Scotland" (28.vi.1954, Trans. Roy. Soc. Edinb. 62(3), No. 15).

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

- 12. Issue of Voting Paper V.P.(55)1: On 19th May 1955, a Voting Paper (V.P.(55)1) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the specific name immigrans Sturtevant, 1921, as published in the combination Drosophila immigrans (Class Insecta, Order Diptera), as set out in Points (1) to (3) in paragraph 9 on page 162 of volume 9 of the Bulletin of Zoological Nomenclature" [i.e. in the Points numbered as above in paragraph 9 of the application reproduced in the first paragraph of the present Opinion].
- 13. The Prescribed Voting Period: As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 19th August 1955.

- 14. Particulars of the Voting on Voting Paper V.P.(55)1: At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)1 was as follows:—
 - (a) Affirmative Votes had been given by the following twenty-one (21) Commissioners (arranged in the order in which Votes were received):

Bodenheimer; Holthuis; Hering; Vokes; Mayr; Lemche; do Amaral; Prantl; Stoll; Dymond; Esaki; Kühnelt; Tortonese; Hankó; Jaczewski; Cabrera; Sylvester-Bradley; Riley; Bonnet; Hemming; Mertens;

(b) Negative Votes, two (2):

Bradley (J.C.); Miller;

(c) Voting Papers not returned, two (2);

Boschma; Key.

- 15. Declaration of Result of Vote: On 20th August, 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)1, signed a Certificate that the Votes cast were as set out in paragraph 14 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.
- 16. Preparation of the Ruling given in the present "Opinion": On 26th February 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)1.

17. Original References: The following are the original references for the names placed on Official Lists and Official Indexes by the Ruling given in the present Opinion:—

brouni, Drosophila, Hutton, 1901, Trans. New Zealand Inst. 33:91 immigrans, Drosophila, Sturtevant, 1921, Carnegie Inst. Washington. Publ. No. 301:83

- 18. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.
- 19. The present *Opinion* shall be known as *Opinion* Three Hundred and Ninety-Six (396) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Sixth day of February, Nineteen Hundred and Fifty-Six.

Secretary to the International Commission on Zoological Nomenclature

FRANCIS HEMMING

APPENDIX

Report of an examination by Professor Marshall R. Wheeler of the holotype of the nominal species "Drosophila immigrans" Sturtevant, 1921

Since the completion of the present *Opinion* Professor Ernst Mayr has furnished the Office of the Commission with a copy of a letter dated 31st January 1956 received by him from Professor Marshall R. Wheeler (*University of Texas, Austin, Texas, U.S.A.*) (a co-applicant with Professor Mayr in the present case), reporting the result of an examination recently made by him of the holotype of *Drosophila immigrans* Sturtevant, 1921. In view of the statement in paragraph 7 of the application submitted in this case (1954, *Bull. zool. Nomencl.* 9:161—162) that on the completion of the revision of this group then in progress it might be found that the foregoing nominal species was a composite of several sibling species, it is considered that it would be helpful if the relevant portion of Professor Wheeler's letter were to be included in an Appendix to the present *Opinion*. This is set out below. (intl'd) F.H. 26th March 1956

Extract from a letter dated 31st January 1956 to Professor Ernst Mayr from Professor Marshall R. Wheeler

Through the courtesy of Dr. C. H. Curran, I was able to borrow the holotype of *Drosophila immigrans* from the American Museum of Natural History, New York City. I examined it critically, made some notes, and returned the specimen to Dr. Curran.

The holotype is a male in good state of preservation; it is apparently teneral, however, and the color pattern of the abdominal tergites is not evident. Fortunately, the male genitalia are partially exposed, and that portion which is visible (no dissection was attempted) agrees, as far as I can determine, with the published figures, as, for example, that of Hsu (1949, *Univ. Texas Publ.* 4920, fig. 7 of Pl. XIV).

A comparison of the specimen with Sturtevant's description shows that there are a few items in the description which deserve alteration:—

- (1) The wings are clouded at the apices of the 2nd and 3rd longitudinal veins, and less so at the apex of the 4th (rather than at the apices of the 1st and 2nd as Sturtevant had it).
- (2) The two basal joints of the first leg are not really much thickened but rather they bear very thick pads of dense short yellowish hairs below, and this gives an impression of thickness.

In summary, it is my well-considered opinion that the type specimen is adequately diagnostic, and that no further action is necessary to determine the identity of *immigrans* beyond doubt.